

FIG. 1

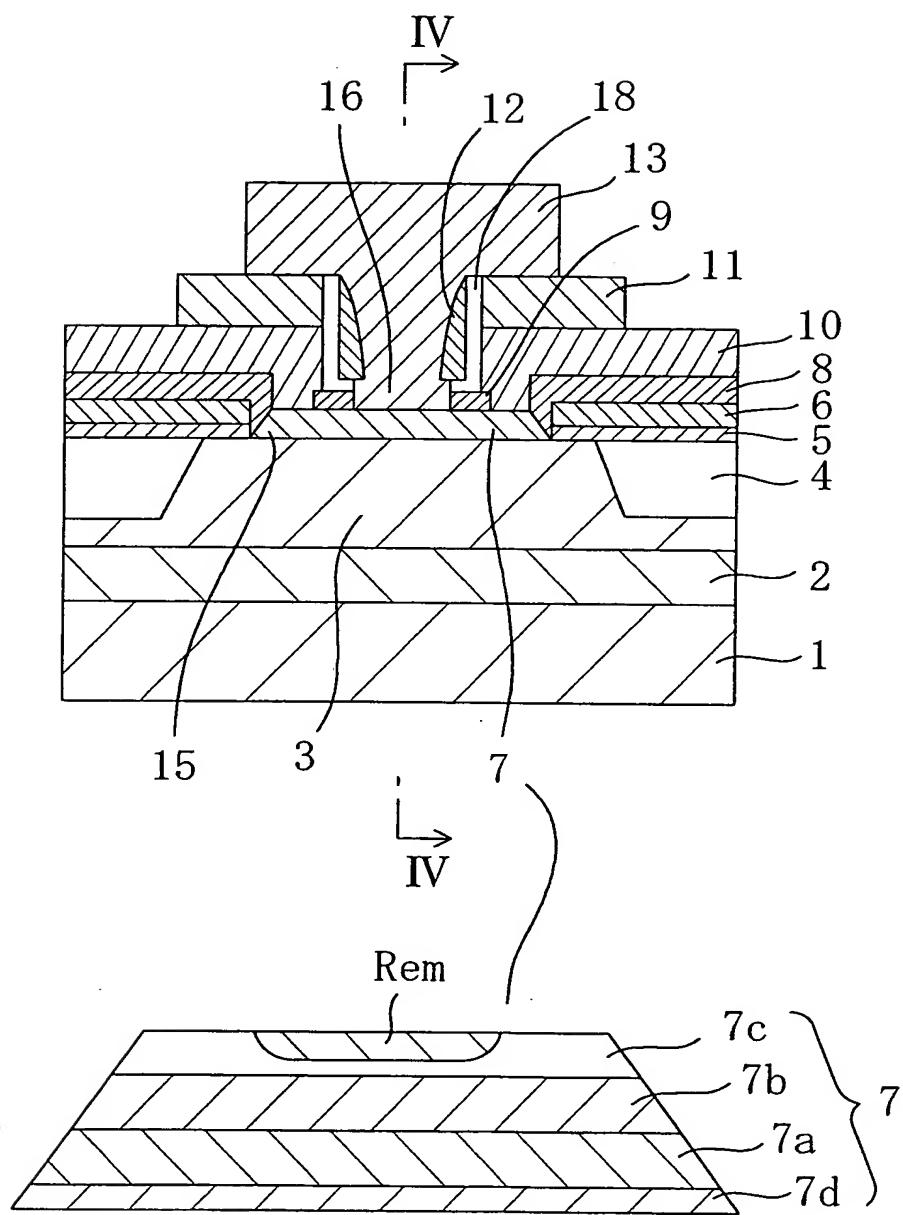


FIG. 2A

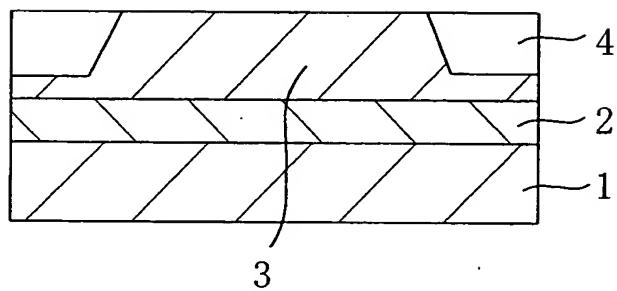


FIG. 2B

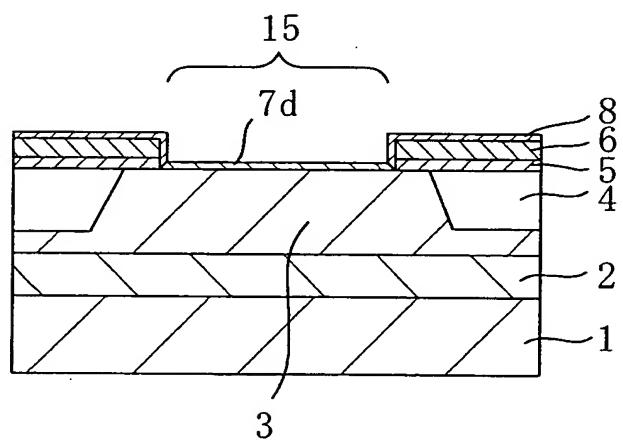


FIG. 2C

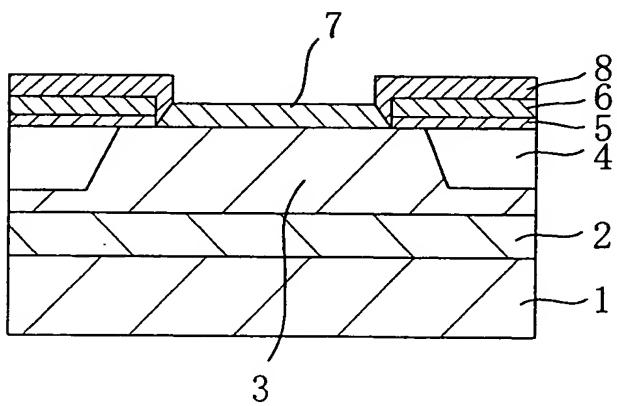


FIG. 3A

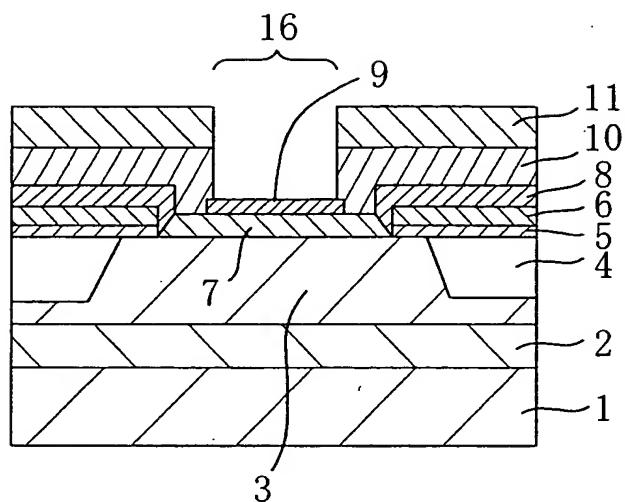


FIG. 3B

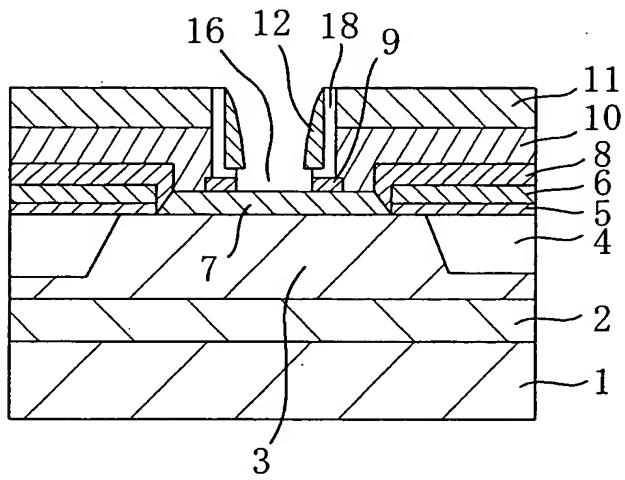


FIG. 3C

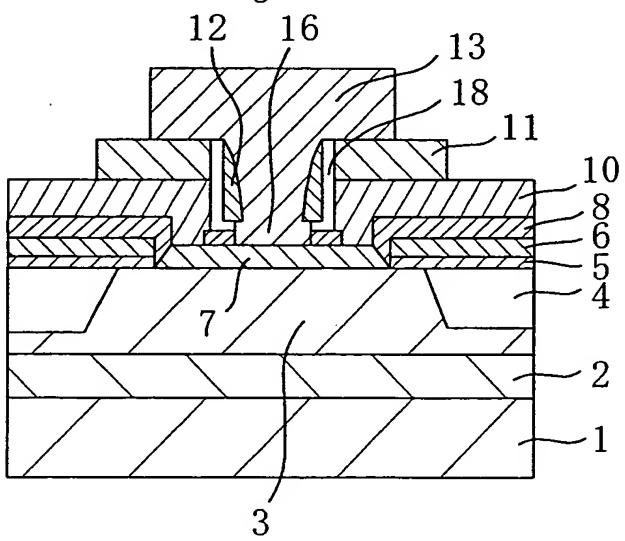


FIG. 4

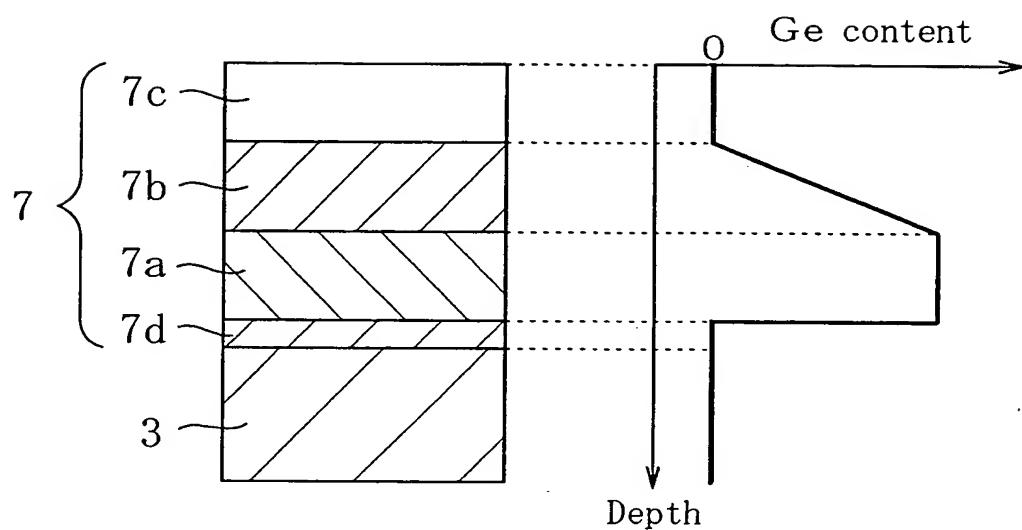


FIG. 5

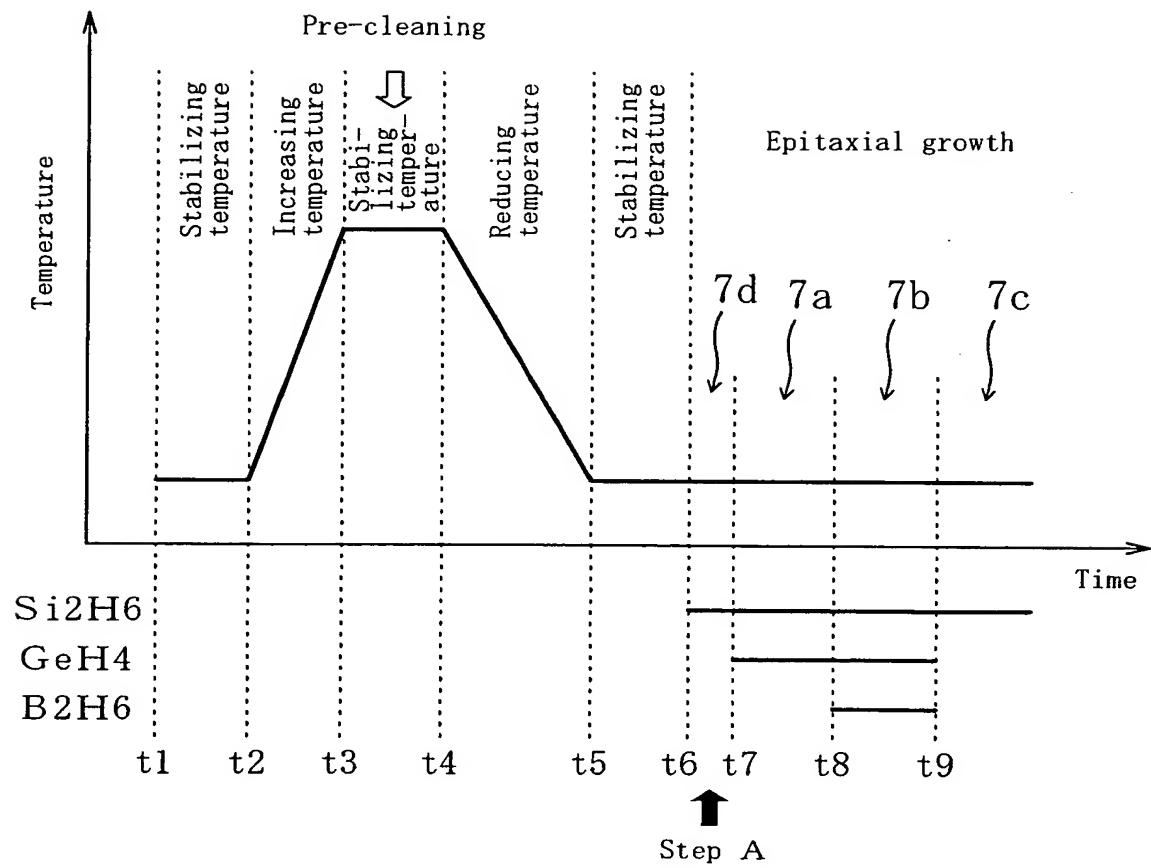


FIG. 6

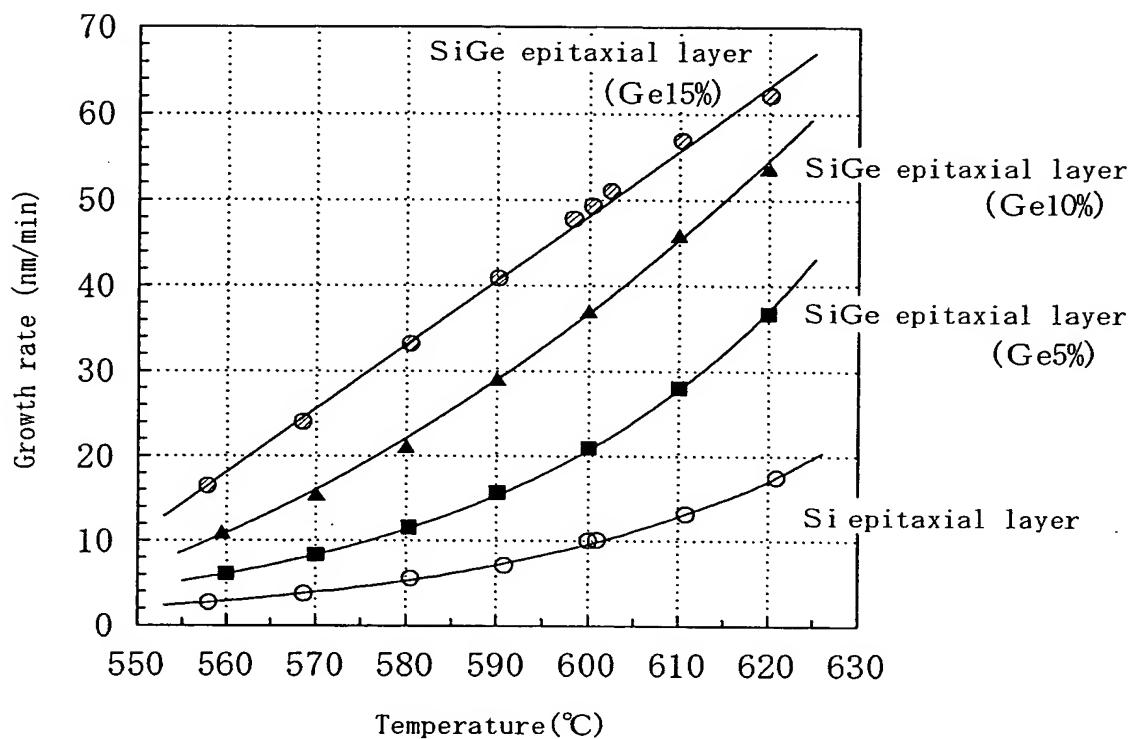


FIG. 7

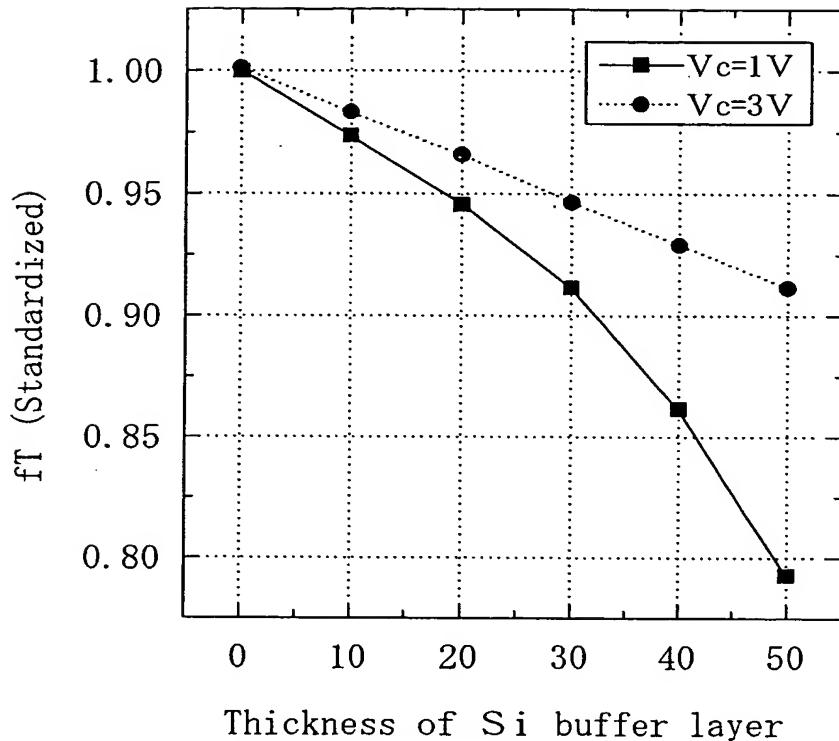


FIG. 8

Epitaxial structure	$f_{T\max}(V_{CE}=2V)$	$f_{\max}(V_{CE}=2V)$
Si buffer layer included	41. 6GHz	51. 5GHz
No Si buffer layer included	40. 3GHz	52. 3GHz

FIG. 9

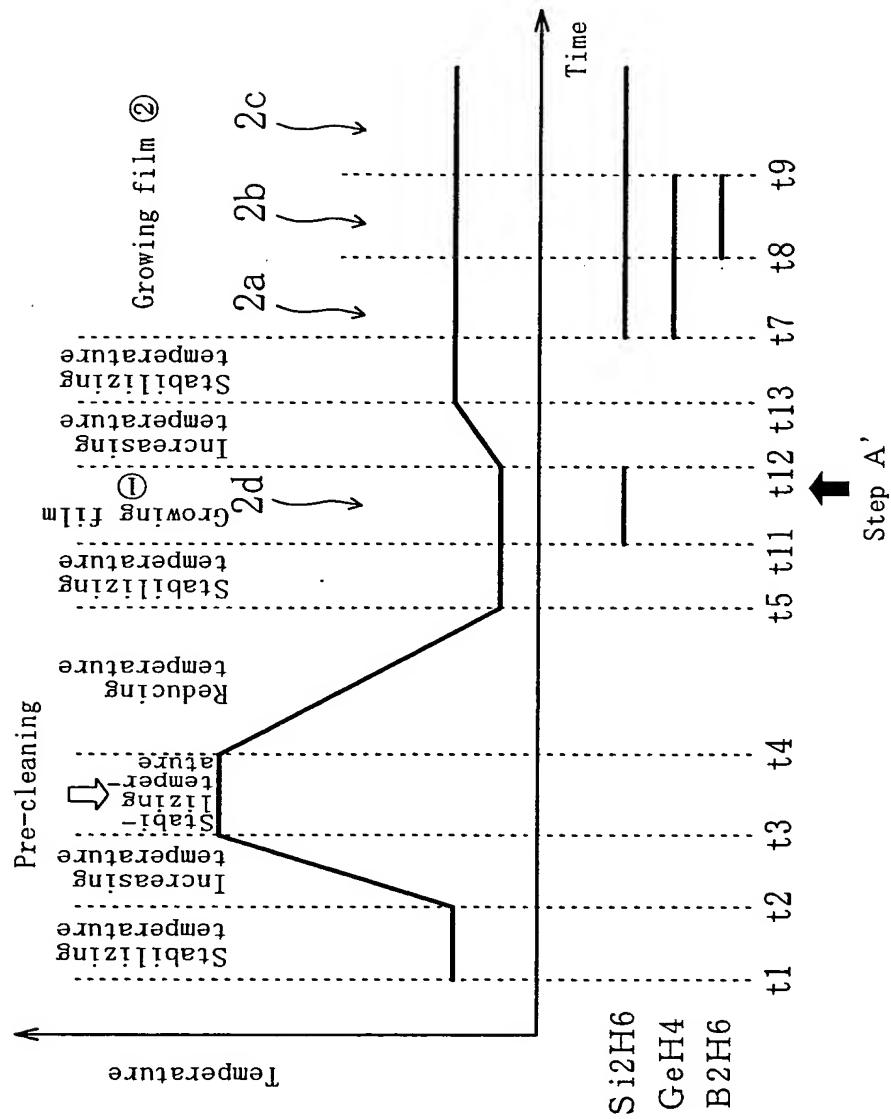


FIG. 10

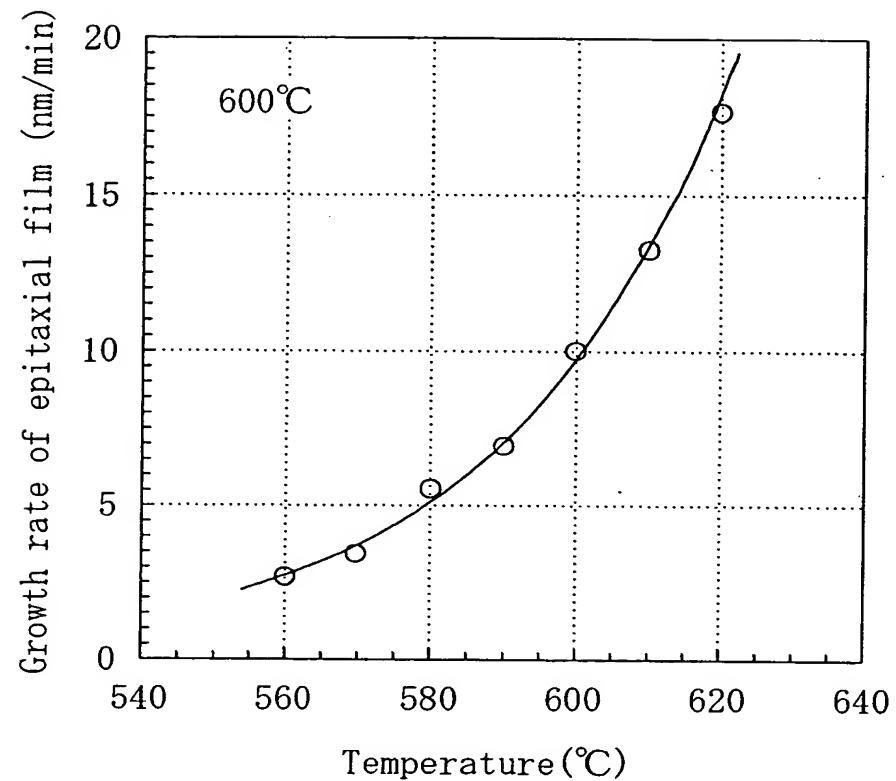


FIG. 11

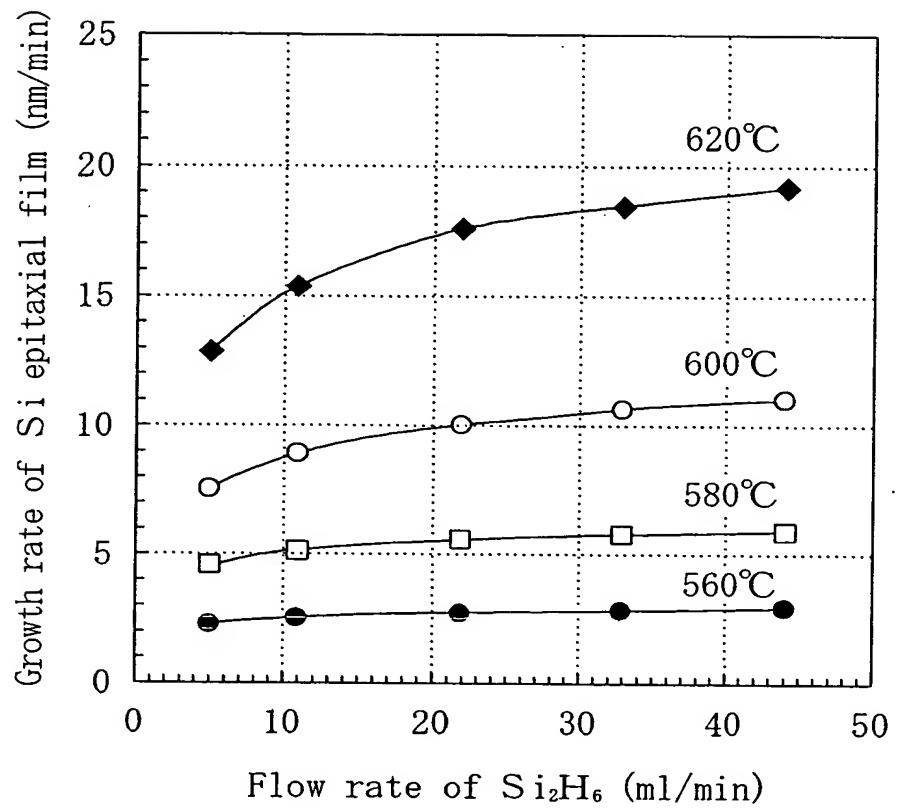


FIG. 12

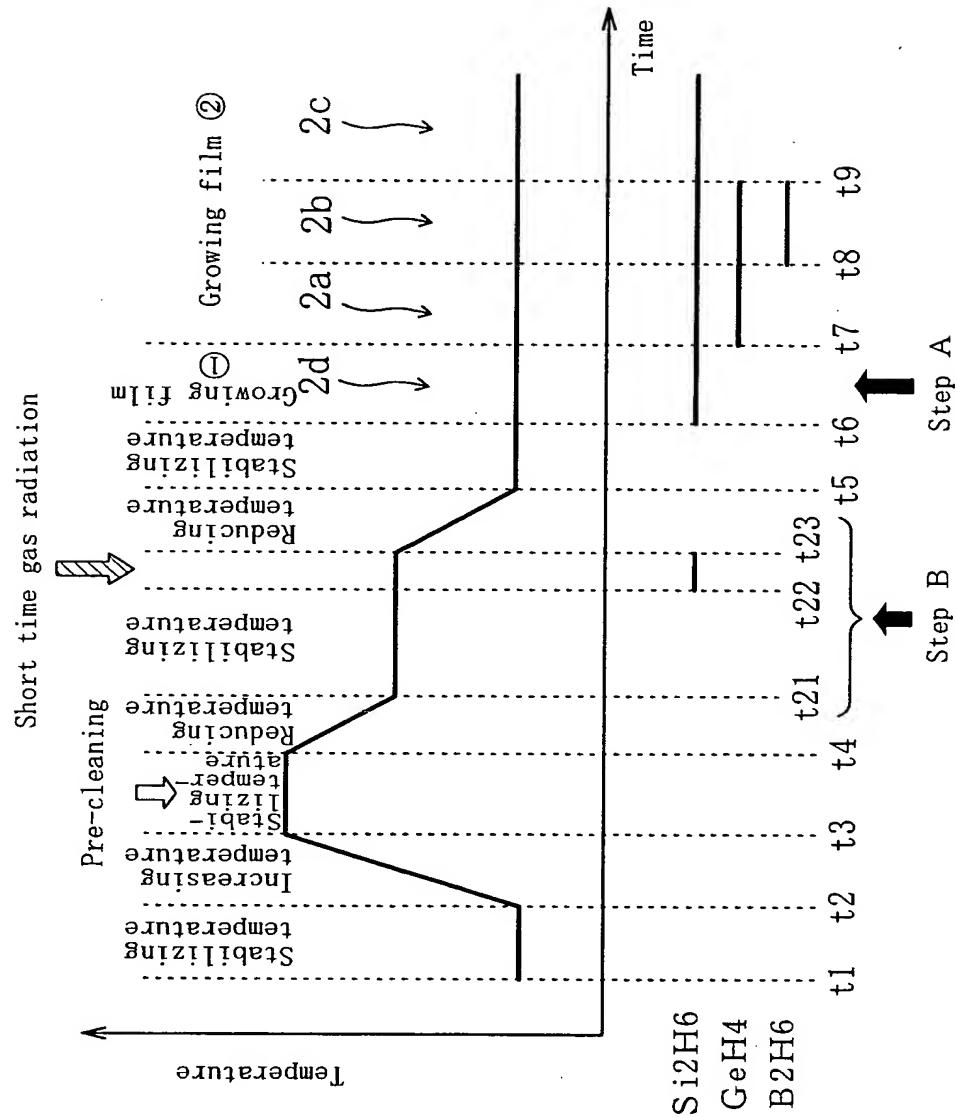


FIG. 13

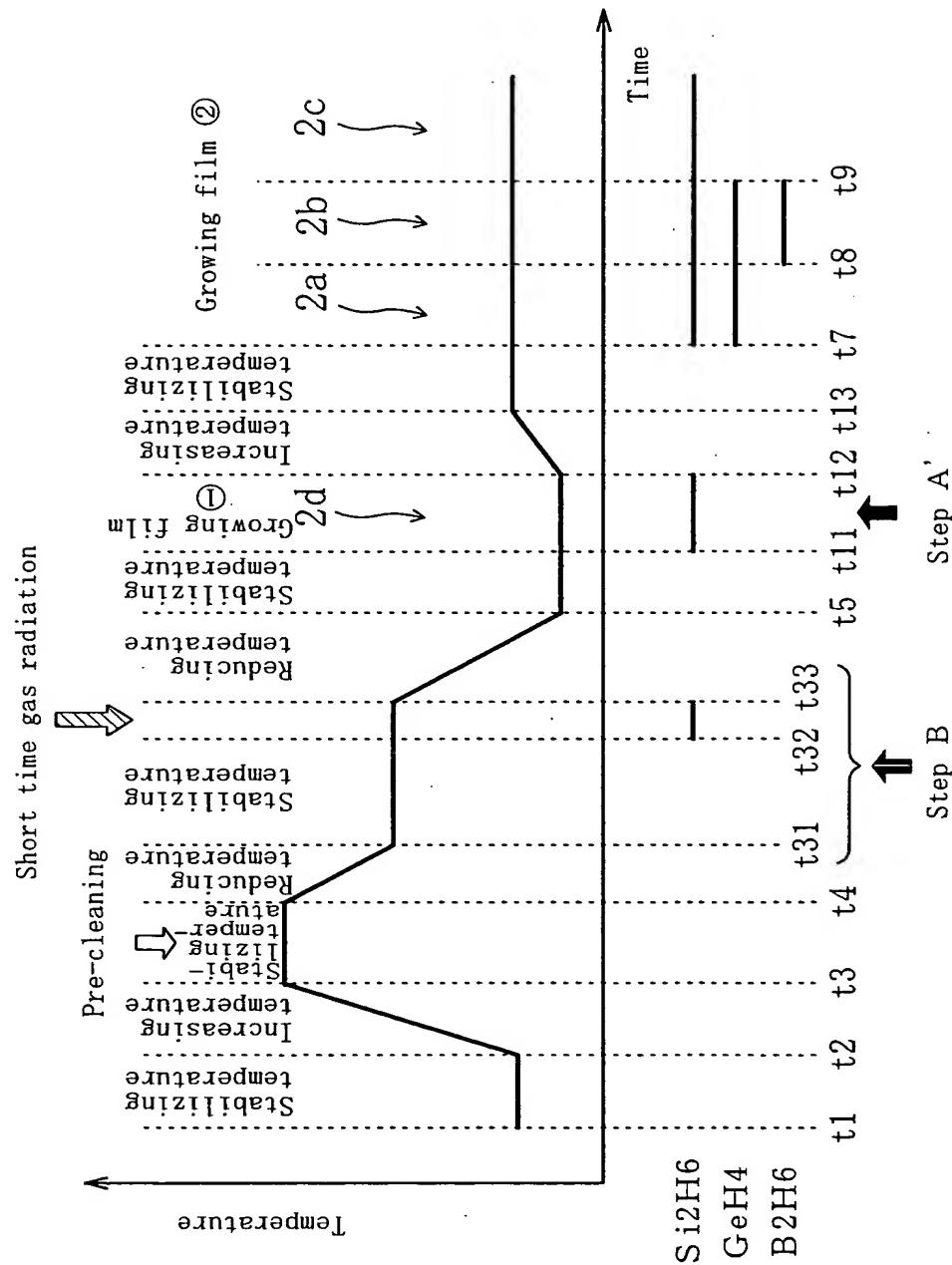


FIG. 14A

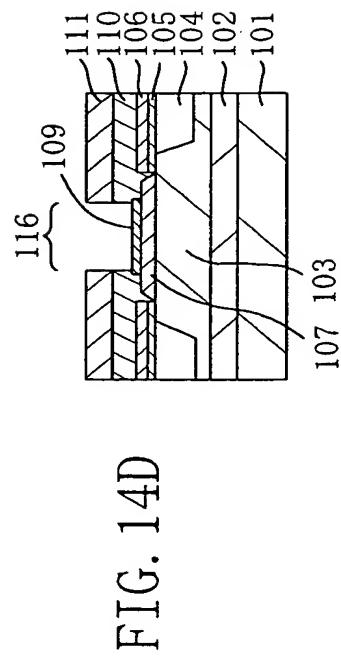
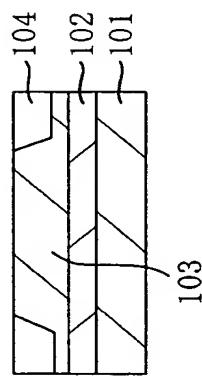


FIG. 14D

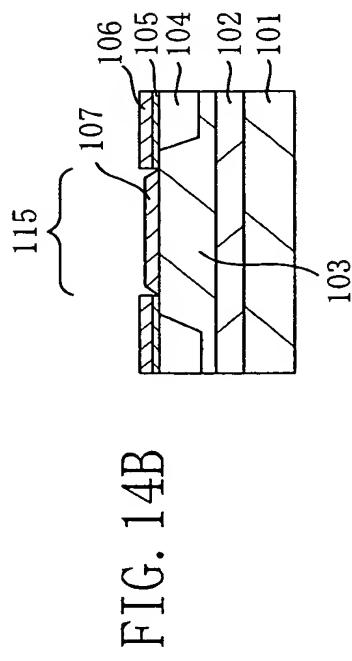


FIG. 14B

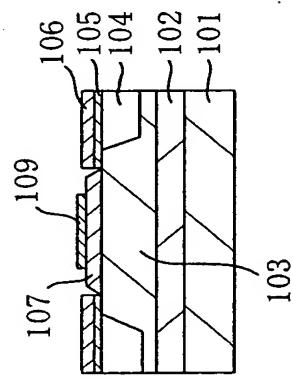


FIG. 14C

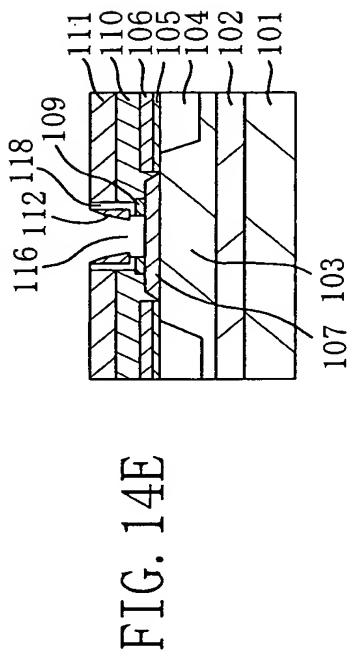


FIG. 14E

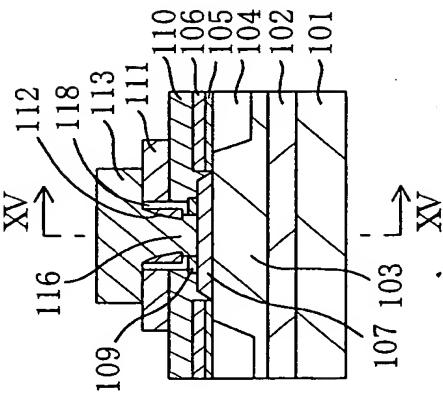


FIG. 14F

FIG. 15

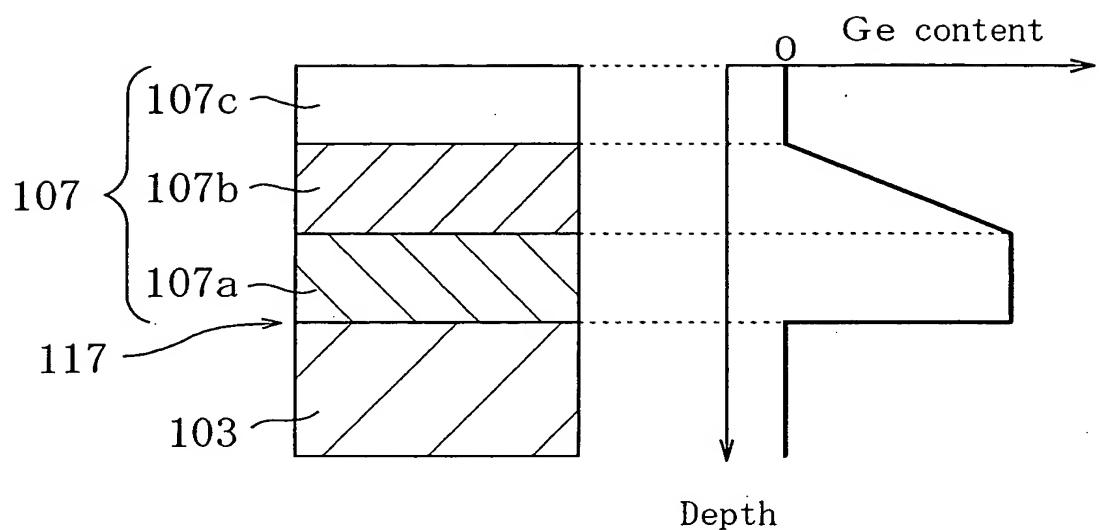


FIG. 16

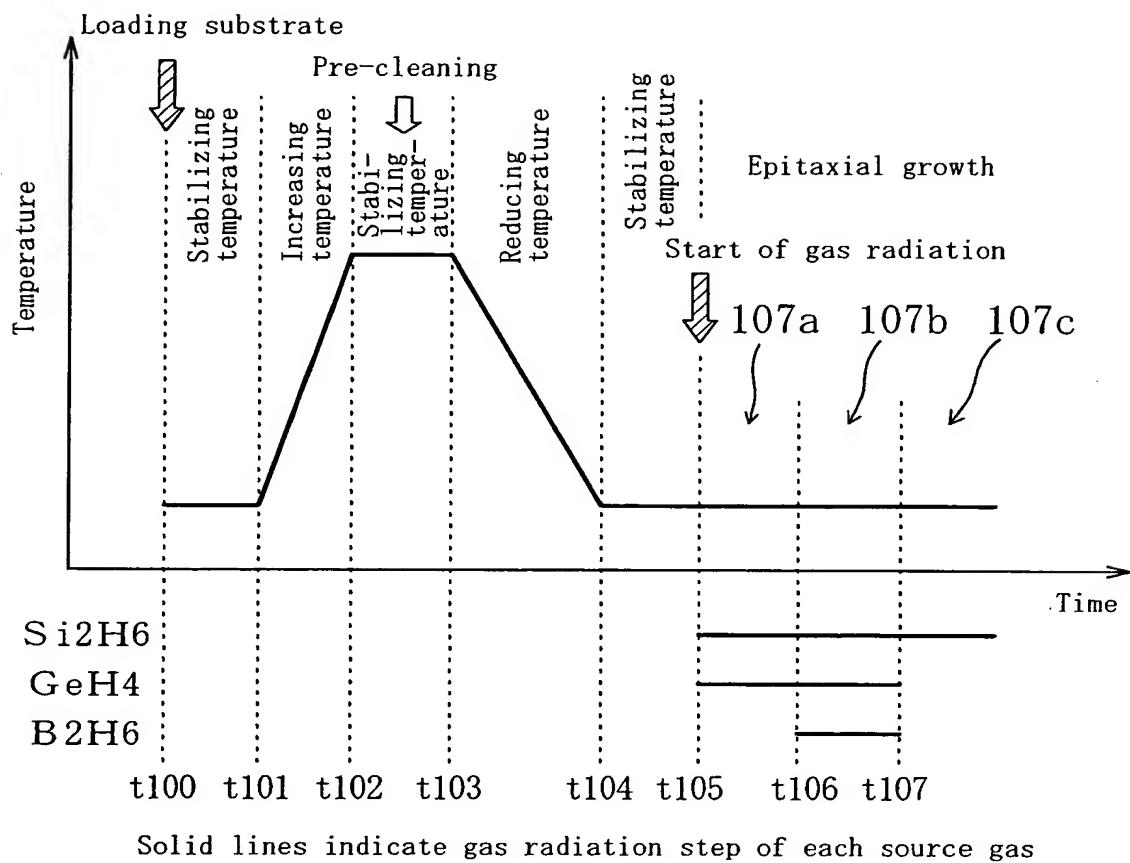


FIG. 17A

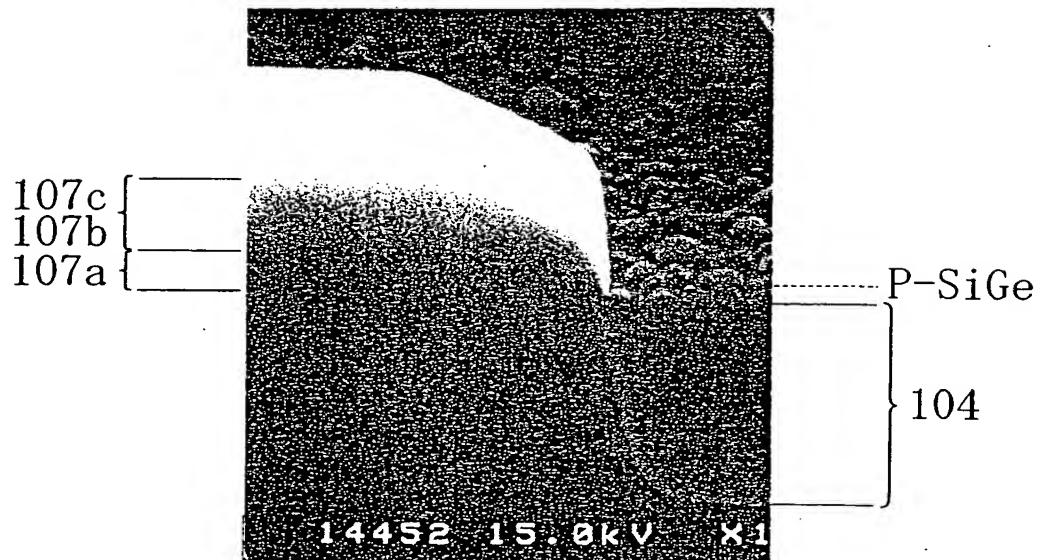
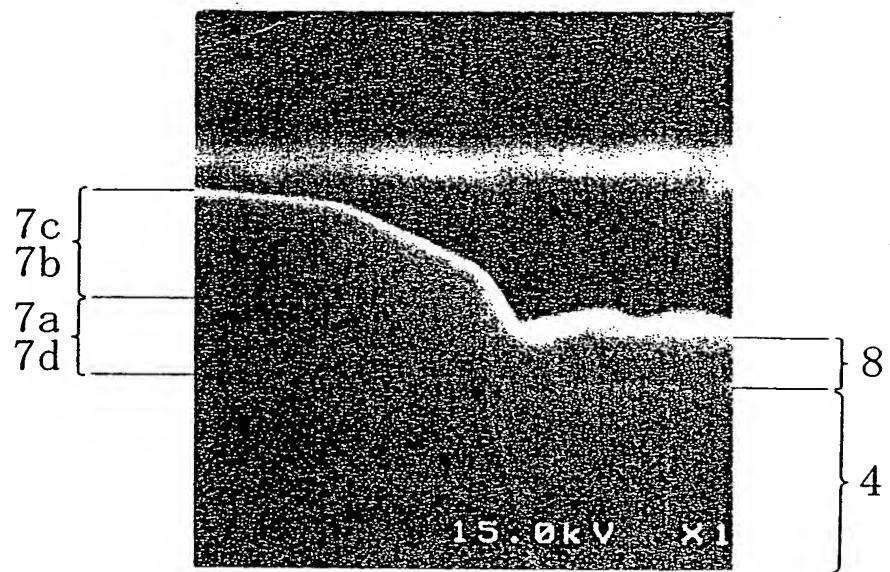


FIG. 17B



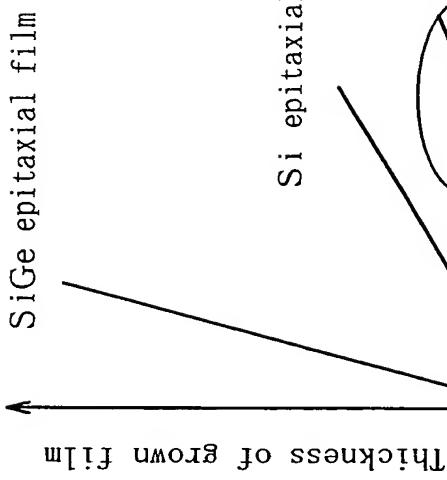
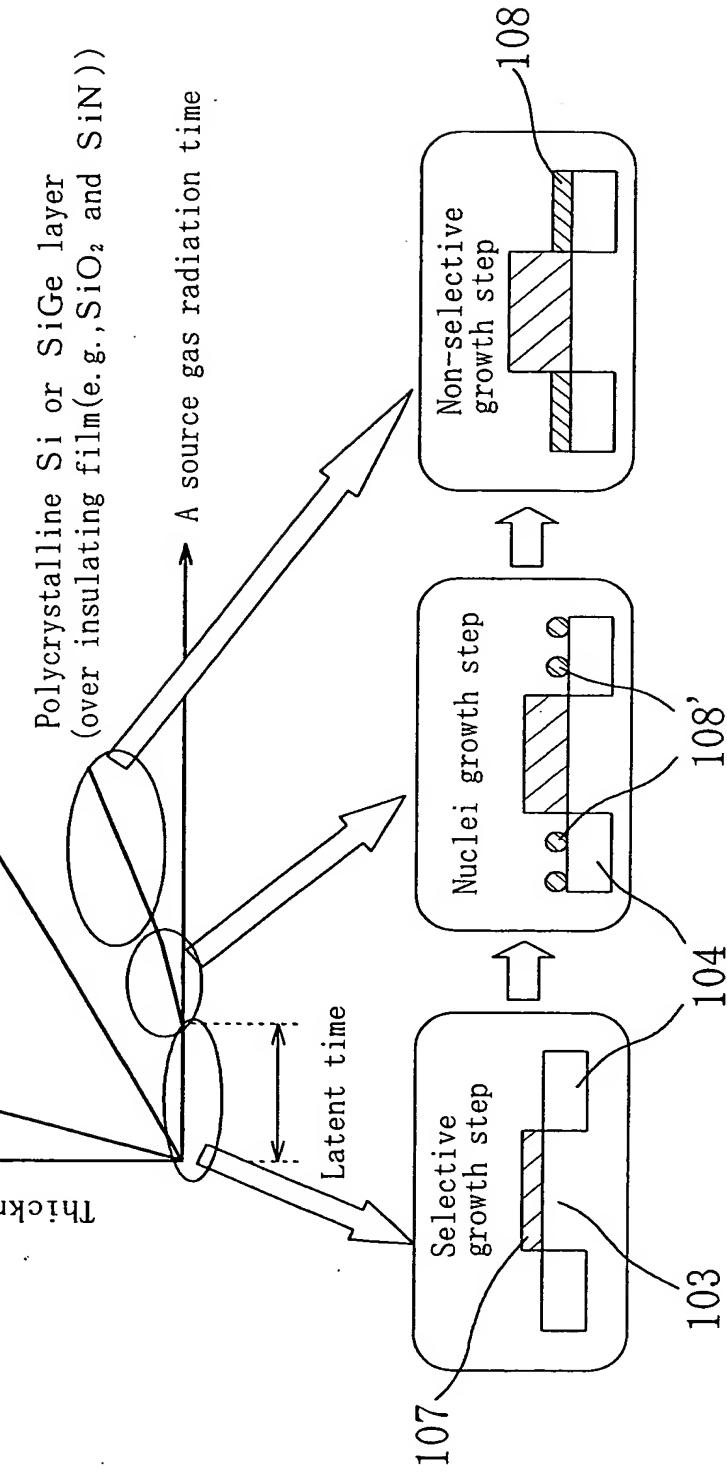


FIG. 18



Poly-crystalline Si or SiGe layer
(over insulating film (e.g., SiO_2 and SiN))